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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

1

of

2

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Application Number

Unassigned
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**Filing Date**

**Herewith**

**First Named Inventor**

Nimmakayala et al.

## Group Art Unit

Unassigned

**Examiner Name**

Unassigned

Attorney Docket Number

MII-94-69v18

## U.S. PATENT DOCUMENTS

[illegible]

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<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

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				Applicati n Num b r	Unassigned
				Filing Date	Herewith
				First Named Inventor	Nimmakayala et al.
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	2	Attorney Docket Number	MI-94-69v18

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Examiner Signature	/Leo B. Tentoni/	Date Considered	01/20/2007
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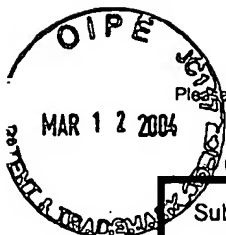
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<b>Substitute for form 1449B/PTO</b>				<b>Complete if Known</b>	
				<b>Application Number</b>	10/735,110
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				<b>Filing Date</b>	12/12/2003
				<b>First Named Inventor</b>	Nimmakayala et al.
				<b>Group Art Unit</b>	Unassigned
				<b>Examiner Name</b>	Unassigned
<b>Sheet</b>	3	<b>of</b>	4	<b>Attorney Docket Number</b>	P122/MII-94-69V18

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<b>OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS</b>				
<b>Examiner Initials*</b>	<b>Cite No.</b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>	<b>T<sup>2</sup></b>	
LBT	B27	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).		
	B28	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.		
	B29	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).		
	B30	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.		
	B31	FELDMAN et al., "Wafer chuck for magnification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.		
	B32	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).		
	B33	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.		
	B34	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).		
	B35	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.		
	B36	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.		
LBT	B37	CHOU, "Nanoimprint Lithography and Lithographically Induced Self-Assembly," MRS Bulletin, July 2001, pp. 512-517.		

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		Filing Date	12/12/2003		
		First Named Inventor	Nimmakayala et al.		
		Group Art Unit	Unassigned		
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Sheet	4	of	4	Attorney Docket Number	P122/MII-94-69V18

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LBT	B38	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317, Filed with USPTO on October 27, 2000.	
LBT	B39	SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application 09/907,512, Filed with USPTO on July 16, 2001.	
LBT	B40	CHOI et al., "Systems For Magnification And Distortion Correction For Imprint Lithography Processes," U.S. Patent Application 10/616,294, Filed with USPTO on July 9, 2003.	

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Substitute for form 1449A/PTO

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Sheet

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4

**Complete if Known**

<b>Application Number</b>	10/735,110
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<b>Filing Date</b>	12/12/2003
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<b>First Named Inventor</b>	Nimmakayala et al.
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Group Art Unit	Unassigned
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<b>Examiner Name</b>	<b>Unassigned</b>
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**Attorney Docket Number** P122/MII-94-69V18

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Application Number</b>	10/735,110
				<b>Filing Date</b>	12/12/2003
				<b>First Named Inventor</b>	Nimmakayala et al.
				<b>Group Art Unit</b>	Unassigned
				<b>Examiner Name</b>	Unassigned
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LBT	C5	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
	C6	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
	C7	CHOI et al., "Method and System of Automatic Fluid Dispensing for Imprint Lithography Processes," U.S. Patent Application Publication 2002/0094496. Published on July 18, 2002.	
	C8	CHOI et al., "Methods for High-Precision Gap and Orientation Sensing Between a Transparent Template and Substrate for Imprint Lithography," U.S. Patent Application Publication 2003/0093122. Published on July 18, 2002.	
	C9	VOISIN, "Methods of Manufacturing a Lithography Template," U.S. Patent Application 10/136,188, Filed with USPTO on May 1, 2002.	
	C10	SREENIVASAN et al., "Step and Repeat Imprint Lithography Systems," U.S. Patent Application 10/194,414. Filed with USPTO July 11, 2002.	
	C11	SREENIVASAN et al., "Step and Repeat Imprint Lithography Processes," U.S. Patent Application 10/194,991. Filed with USPTO July 11, 2002.	
	C12	OTTO M. et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues," Nanoimprint and Nanoprint Technology Conference, San Francisco, December 11-13, 2002.	
	C13	JOHNSON, et al., "Advances in Step and Flash Imprint Lithography," SPIE Microlithography Conference, February 23-28, 2003.	
	C14	CHOI et al., "A Chucking System and Method for Modulating Shapes of Substrates," U.S. Patent Application 10/293,224. Filed with USPTO on November 13, 2002.	
LBT	C15	CHOI et al., "A Method For Modulating Shapes of Substrates," U.S. Patent Application 10/316,963. Filed with USPTO on December 11, 2002.	

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		<b>First Named Inventor</b>	Nimmakayala et al.
		<b>Group Art Unit</b>	Unassigned
		<b>Examiner Name</b>	Unassigned
		<b>Attorney Docket Number</b>	P122/MII-94-69V18
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LBT	C16	VOISIN, "Methods of Inspecting A Lithography Template," U.S. Patent Application 10/293,919. Filed with USPTO on November 13, 2002	
LBT	C17	CHOI et al., "A Conforming Template For Patterning Liquids Disposed On Substrates," U.S. Patent Application 10/614,716. Filed with USPTO on July 7, 2003.	
LBT	C18	SREENIVASAN et al., "Full-Wafer or Large Area Imprinting with Multiple Separated Sub-Fields for High Throughput Lithography," U.S. Patent Application 10/788,700. Filed with USPTO on February 27, 2004.	

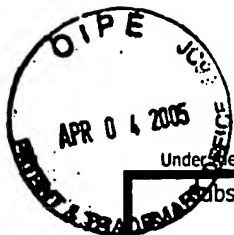
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Sheet	1	of	7	APPLICATION NUMBER	10/735,110
				FILING DATE	12/12/2003
				FIRST NAMED INVENTOR	Nimmakayala et al.
				Group Art Unit	2851
				Examiner Name	Unassigned
				Attorney Docket Number	P122-64V58

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

LBT	E1	5,414,514		Smith et al.	5/9/1995	
	E2	5,808,742		Everett et al.	9/15/1998	
	E3	6,088,103		Everett et al.	7/11/2000	
	E4	6,137,562		Masuyuki et al.	10/24/2000	
	E5	6,391,217	B2	Schaffer et al.	5/21/2002	
	E6	6,522,411	B1	Moon et al.	2/18/2003	
	E7	2004/0007799	A1	Choi et al.	1/15/2004	
	E8	2004/0021254	A1	Sreenivasan et al.	2/5/2004	
	E9	2004/0021866	A1	Watts et al.	2/5/2004	
	E10	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	E11	2003/0092261	A1	Kondo et al.	5/15/2003	
	E12	2003/0179354	A1	Araki et al.	9/25/2003	
	E13	2002/0177319	A1	Chou	11/28/2002	
	E14	2002/0150398	A1	Choi et al.	10/17/2002	
	E15	2004/0008334	A1	Sreenivasan et al.	1/15/2004	
	E16	2004/0009673	A1	Sreenivasan et al.	1/15/2004	
↓	E17	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
LBT	E18	2004/0089979	A1	Rubin	5/13/2004	

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						Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

LBT	E19	2004/0086793	A1	Sreenivasan et al.	5/6/2004	
	E20	2004/0053146	A1	Sreenivasan et al.	3/18/2004	
	E21	3,783,520		King	1/8/1974	
	E22	6,150,231		Muller et al.	11/21/2000	
	E23	6,489,068	B1	Kye	12/3/2002	
	E24	6,646,662	B1	Nebashi et al.	11/11/2003	
	E25	6,770,852	B1	Stegner	8/3/2004	
	E26	6,776,094	B1	Whitesides et al.	8/17/2004	
	E27	4,600,309		Fay	7/15/1986	
	E28	4,848,911		Uchida et al.	7/18/1989	
	E29	5,074,667		Miyatake	12/24/1991	
	E30	5,148,036		Matsugu et al.	9/15/1992	
	E31	5,148,037		Suda et al.	9/15/1992	
	E32	6,518,189	B1	Chou	2/11/2003	
	E33	2002/0132482	A1	Chou	9/19/2002	
	E34	2002/0167117	A1	Chou	11/14/2002	
✓	E35	6,482,742	B1	Chou	11/19/2002	
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Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>				<b>APPLICATION NUMBER</b>	10/735,110
				<b>FILING DATE</b>	12/12/2003
				<b>FIRST NAMED INVENTOR</b>	Nimmakayala et al.
				<b>Group Art Unit</b>	2851
				<b>Examiner Name</b>	Unassigned
<b>Sheet</b>	3	<b>of</b>	7	<b>Attorney Docket Number</b>	P122-64V58

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Office	Number <sup>3</sup>				

LBT	E37	2004/0036201	A1	Chou et al.	2/26/2004	
	E38	2004/0192041	A1	Jeong et al.	9/30/2004	
	E39	6,828,244	B2	Chou	12/7/2004	
	E40	6,809,356	B2	Chou	10/26/2004	
	E41	5,737,064		Inoue et al.	4/7/1998	
	E42	2002/0018190	A1	Nogawa et al.	2/14/2002	
	E43	2004/0197843	A1	Chou et al.	10/7/2004	
	E44	2004/0156108	A1	Chou et al.	8/12/2004	
	E45	2004/0137734	A1	Chou et al.	7/15/2004	
	E46	2004/0131718	A1	Chou et al.	7/8/2004	
	E47	2004/0118809	A1	Chou et al.	6/24/2004	
	E48	2004/0046288	A1	Chou	3/11/2004	
	E49	2003/0080472	A1	Chou	5/1/2003	
	E50	2003/0034329	A1	Chou	2/20/2003	
	E51	2002/0042027	A1	Chou et al.	4/11/2002	
	E52	6,636,311	B1	Ina et al.	10/21/2003	
✓	E53	6,383,888	B1	Stirton	5/7/2002	
LBT	E54	2004/0033515	A1	Cao et al.	2/19/2004	

<b>Examiner Signature</b>	/Leo B. Tentoni/	<b>Date Considered</b>	01/20/2007
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT***(use as many sheets as necessary)*

Sheet 4 of 7

**Complete if Known**

<b>APPLICATION NUMBER</b>	10/735,110
<b>FILING DATE</b>	12/12/2003
<b>FIRST NAMED INVENTOR</b>	Nimmakayala et al.
<b>Group Art Unit</b>	2851
<b>Examiner Name</b>	Unassigned
<b>Attorney Docket Number</b>	P122-64V58

**FOREIGN PATENT DOCUMENTS**

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		Office	Number <sup>3</sup>	Kind Code <sup>4</sup> (if known)				

LBT	E55	5,999,245		Suzuki	12/7/1999	
	E56	2004/0223131	A1	Choi et al.	11/11/2004	
	E57	6,630,410	B2	Trapp et al.	10/7/2003	
	E58	6,580,172	B2	Mancini et al.	6/17/2003	
	E59	10/999,898		Cherala et al.	11/30/2004	
	E60	4,512,848		Deckman et al.	4/23/1985	
	E61	6,388,755	B1	Zhao	5/14/2002	
	E62	6,295,120	B1	Miyatake	9/25/2001	
	E63	6,049,373		Miyatake	4/11/2000	
	E64	6,285,439	B1	Miyatake	9/4/2001	
	E65	6,791,669	B2	Poon	9/14/2004	
	E66	6,517,995	B1	Jacobenson et al.	2/11/2003	
	E67	4,256,829		Daniel	3/17/1981	
	E68	2004/0110856	A1	Young et al.	6/10/2004	
	E69	5,028,366		Harakal et al.	7/2/1991	
	E70	5,601,641		Stephens	2/11/1997	
✓	E71	5,849,209		Kindt-Larsen et al.	12/15/1998	
LBT	E72	5,849,222		Jen et al.	12/15/1998	

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/Leo B. Tentoni/

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Considered

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				<b>FILING DATE</b>	12/12/2003
				<b>FIRST NAMED INVENTOR</b>	Nimmakayala et al.
				<b>Group Art Unit</b>	2851
				<b>Examiner Name</b>	Unassigned
<b>Sheet</b>	5	<b>of</b>	7	<b>Attorney Docket Number</b>	P122-64V58

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

LBT	E73	WO	00/21689		Chou et al.	4/20/2000		
	E74	JP	02-92603		Kurikawa et al.	4/3/1990		
	E75	JP	02-24848		Kamio	1/26/1990		
	E76	WO	01/47003		Steiner et al.	6/28/2001		
	E77	WO	02/07199		Chou	1/24/2002		
	E78	WO	2004/114016		Chou et al.	12/29/2004		
	E79	WO	99/05724		Chou et al.	2/4/1999		
	E80	WO	03/010289		Chou et al.	2/6/2003		
✓	E81	WO	03/079416		Chou	9/25/2003		
LBT	E82	WO	03/099536		Chou et al.	12/4/2003		

<b>Examiner Signature</b>	/Leo B. Tentoni/	<b>Date Considered</b>	01/20/2007
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				<b>APPLICATION NUMBER</b> <b>FILING DATE</b> <b>FIRST NAMED INVENTOR</b> Group Art Unit Examiner Name Attorney Docket Number	10/735,110 12/12/2003 Nimmakayala et al. 2851 Unassigned P122-64V58
Sheet	6	of	7		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>

LBT	E83	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	E84	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
	E85	Martin et al., Predication of Fabrication Distortions in Step and Flash Imprint Lithography Templates, Journal of Vacuum Science Technology B 20(6), pp. 2891-2895, 11/1/2002	
	E86	White et al., Novel Alignment System for Imprint Lithography, J. Vac. Sci. Technol. B 18(6), pp. 3552 - 3556, 11/1/2000	
	E87	Translation of Japanese Patent 02-92603	
	E88	Translation of Japanese Patent 02-24848	
	E89	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002	
	E90	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technolgy B 14(16), pp. 4129-4133, 11/1/1996	
LBT	E91	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	

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				<b>APPLICATION NUMBER</b>	10/735,110
				<b>FILING DATE</b>	12/12/2003
				<b>FIRST NAMED INVENTOR</b>	Nimmakayala et al.
				Group Art Unit	2851
				Examiner Name	Unassigned
				Attorney Docket Number	P122-64V58
Sheet	7	of	7		

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

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LBT	E92	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
	E93	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
	E94	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
↓	E95	Wronosky et al., Wafer and Reticle Positioning System for the Extreme Ultraviolet Lithography Engineering Test Stand, Emerging Lithography Technologies, Proceedings of SPIE Vol. 3997, pp. 829-839, 7/1/2000	
LBT	E96	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

Examiner Signature	/Leo B. Tentoni/	Date Considered	01/20/2007
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				FILING DATE	12/12/2003
				FIRST NAMED INVENTOR	Nimmakayala et al.
				Group Art Unit	1756
				Examiner Name	Christopher G. Young
				Attorney Docket Number	P122-65V5a
Sheet	1	of	2		

[illegible]

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				Group Art Unit	1756
				Examiner Name	Christopher G. Young
				Attorney Docket Number	P122-65V58
Sheet	2	of	2		

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LBT	F5	PARK ET AL., Aligning Liquid Crystals Using Replicated Nanopatterns, PSI Scientific Report 2002, Vol VII, p. 85 3/1/2003	
LBT	F6	APPLICATION NO. 11/142,834, naming Inventors Cherala et al., entitled Method of Varying Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	
LBT	F7	APPLICATION NO. 11/142,839, naming Inventors Cherala et al., entitled Apparatus to Vary Dimensions of a Substrate during Nano-Scale Manufacturing, filed 6/1/2005	

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